

REMARKS

The specification has been amended to correct minor errors noted in the Office Action. These corrections are of a clerical nature and do not add "new matter".

Attached hereto is a marked-up version of the changes made to the specification by the current Amendment. The attached page is captioned "Version with Markings to Show Changes Made."

Objection to Drawings

The drawings stand objected to under 37 C.F.R. § 1.84(p)(5) as allegedly failing to mention various reference signs shown in FIGS. 1, 13B, and 13C. This objection is respectfully traversed.

With respect to FIG. 1, the corresponding description has been amended by this paper.

With respect to FIGS. 13B and 13C, the various reference signs are described in the specification with respect to FIGS. 2, 12, and 13A which precede FIGS. 13B and 13C. Further description would be redundant and might distract from the comprehension of FIGS. 13B and 13C. (See page 5, line 15 through page 6, line 9 and page 29, lines 1-3 and 12-19.)

The 35 U.S.C. § 102 Rejection

According to M.P.E.P. § 2131, "[a] claim is anticipated [under 35 U.S.C. §102(a), (b), and (e)] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." It goes on to state that "[t]he elements must be arranged as required by the claim..."

Claims 1-21 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by *Kracht* (US 6,377,987 B1). This rejection is respectfully traversed.

Each and every element as set forth in the present claims are not found in *Kracht*. Furthermore, the various combinations of elements proposed by the Office Action are never arranged by *Kracht* in the same manner as proposed by the Office Action or as required by the present claims.

Generally, the Office Action states that *Kracht* discloses all of the claim elements including a "hop count" as variously claimed. A number of different citations are given in support of this contention. However, *Kracht* never uses the term "hop count" or its equivalent and only mentions the term "hop" once (col. 11, line 54). This single use of hop is with respect to the name of a data entry in a router table which does not contain a count but an IP address. *Kracht* never initializes, modifies, or examines a hop count as claimed. As an aside, citations to columns 2 and 3 are to the Background of the Invention section of the disclosure and are taken out of context. (See col. 2, line 64 "However,...", and col. 3, lines 22 and 33 "...incorrectly...".)

In view of the above, it is respectfully asserted that the claims can not be said to be anticipated by *Kracht* and are now in condition for allowance.


Request for Allowance

In view of the foregoing, reconsideration and an early allowance of this application are earnestly solicited.

If any matters remain which could be resolved in a telephone interview between the Examiner and the undersigned, the Examiner is invited to call the undersigned to expedite resolution of any such matters.

Respectfully submitted,
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Dated: December 30, 2002



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VERSION WITH MARKINGS TO SHOW CHANGES MADE
IN THE SPECIFICATION

The paragraph beginning at page 3, line 13 has been amended as follows:

-- When a user 10 connects to a particular destination, such as a requested web page on a server 20, the connection from the user 10 to the server 20 is typically routed through several routers R1 12A - R4 12D. Routers are internetworking devices. They are typically used to connect similar and heterogeneous network segments into Internetworks. For example, two LANs may be connected across a dial-up line, across the Integrated Services Digital Network ("ISDN"), or across a leased line via routers. Routers may also be found throughout the Internet. End users may connect to a local Internet Service Provider ("ISP") (not shown). --

ABSTRACT OF THE DISCLOSURE

A method and apparatus for discovering paths to other network devices includes a protocol and network management application that can be executed on network devices. The Ethernet protocol is used to detect paths to other network devices, knowing only the Ethernet address of the destination. A discovery protocol is extended to add hop probe and hop probe reply Type-Length-Value fields in a variable-length list. The hop probe fields contain a hop count, a destination Ethernet address, and a source Ethernet address. When a hop probe is received by a network device, the hop count field is decremented by one and the hop probe is forwarded. Packets received with a hop count of one are not forwarded and a hop probe reply is sent back to the Ethernet source address of the hop probe. The hop probe reply fields contain a destination Ethernet address and a source Ethernet address.